UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

31625

7590

03/17/2009

BAKER BOTTS L.L.P.
PATENT DEPARTMENT
98 SAN JACINTO BLVD., SUITE 1500
AUSTIN, TX 78701-4039

EXAMINER

GISSEL, GUNNAR J

ART UNIT PAPER NUMBER

2856 DATE MAILED: 03/I7/2009

| ı | ADDI ICATIONINO | EILING DATE | EIDGE NAMED INVENTOR | A TTODNEY DOCKET NO | CONFIRMATION NO. | |
|---|-----------------|-------------|----------------------|---------------------|------------------|--|
| | APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | |
| | 10/595,521 | 12/12/2007 | Christian Zimmer | 078857.0176 | 2040 | |

TITLE OF INVENTION; METHOD AND DEVICE FOR ANALYZING THE COMBUSTION NOISE IN A CYLINDER OF AN INTERNAL COMBUSTION ENGINE

APPLN. TYPE SMALL ENTITY ISSUE FEE DUE PUBLICATION FEE DUE PREV. PAID ISSUE FEE TOTAL FEE(S) DUE DATE DUE nonprovisional NO \$1510 \$300 \$0 \$1810 06/17/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where ar in m

| appropriate. All further correspondence including the Patent, advance orders and no indicated unless corrected below or directed otherwise in Block 1, by (a) specifying maintenance fee notifications. CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address) | | | | cation of maintenance fees will be mailed to the current correspondence address as new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must | | | |
|--|--|--|---|---|---|---|--|
| 21625 | 7500 0247 | v2000 | pap hav | e its own certificate | e of ma | iling or transmission. | nt or formal drawing, must |
| BAKER BOTTS L.L.P. PATENT DEPARTMENT 98 SAN JACINTO BLVD., SUITE 1500 | | | I he Stat add tran | Certificate of Mailing or Transmission I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below. | | | |
| AUSTIN, TX 78 | 3701-4039 | | | | | | (Depositor's name) |
| | | | | | | | (Signature) |
| | | | | | | | (Date) |
| APPLICATION NO. | FILING DATE | | FIRST NAMED INVENTOR | | ATTO | RNEY DOCKET NO. | CONFIRMATION NO. |
| 10/595,521 | 12/12/2007 | | Christian Zimmer | | | 078857.0176 | 2040 |
| COMBUSTION ENGIN | E | | ZING THE COMBUSTI | | | | IERNAL |
| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSU | E FEE | TOTAL FEE(S) DUE | DATE DUE |
| nonprovisional | NO | \$1510 | \$300 | \$0 | | \$1810 | 06/17/2009 |
| EXAM | INER | ART UNIT | CLASS-SUBCLASS | | | | |
| GISSEL, G | UNNAR J | 2856 | 073-035040 | | | | |
| CFR 1.363). Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON | | | listed, no name will be printed. | | | | |
| PLEASE NOTE: Uni recordation as set fort (A) NAME OF ASSIG | less an assignee is ident h in 37 CFR 3.11. Comp GNEE | ified below, no assignee oletion of this form is NO | data will appear on the p T a substitute for filing an (B) RESIDENCE: (CITY | natent. If an assign assignment. (and STATE OR (| COUNT | TRY) | ocument has been filed for |
| Please check the appropr | iate assignee category or | categories (will not be p | rinted on the patent): | Individual 🖵 C | orporati | ion or other private gro | oup entity Government |
| 4a. The following fee(s) are submitted: ☐ Issue Fee ☐ Publication Fee (No small entity discount permitted) ☐ Advance Order - # of Copies | | | b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above) A check is enclosed. Payment by credit card. Form PTO-2038 is attached. The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form). | | | | |
| 5. Change in Entity Star | tus (from status indicated s SMALL ENTITY statu | * | ☐ b. Applicant is no lon | | | | |
| NOTE: The Issue Fee an interest as shown by the | d Publication Fee (if requeecords of the United Sta | uired) will not be accepte tes Patent and Trademark | ed from anyone other than to Office. | the applicant; a reg | istered | attorney or agent; or th | e assignee or other party in |
| | | | | Date | | | |
| Typed or printed name | | | | | | | |
| This collection of inform an application. Confiden submitting the complete this form and/or suggesti Box 1450, Alexandria, V Alexandria, Virginia 223 | tiality is governed by 35 d application form to the ions for reducing this but irginia 22313-1450. DC | CFR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the O NOT SEND FEES OR | on is required to obtain or 1.14. This collection is esy depending upon the indite Chief Information Offic COMPLETED FORMS T | retain a benefit by timated to take 12 vidual case. Any co er, U.S. Patent and O THIS ADDRES | the pub minutes ommen Trader S. SEN | lic which is to file (anc to complete, includin ts on the amount of tir mark Office, U.S. Depa D TO: Commissioner f | by the USPTO to process) g gathering, preparing, and ne you require to complete utment of Commerce, P.O. for Patents, P.O. Box 1450, |

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | |
|-----------------------------------|-----------------------------|----------------------|-------------------------|------------------|--|
| 10/595,521 | 12/12/2007 Christian Zimmer | | 078857.0176 | 2040 | |
| 31625 75 | 590 03/17/2009 | | EXAMINER | | |
| BAKER BOTTS L.L.P. | | GISSEL, GUNNAR J | | | |
| PATENT DEPARTMENT | | | ART UNIT | PAPER NUMBER | |
| 98 SAN JACINTO AUSTIN, TX 7870 | DBLVD., SUITE 1500 | | 2856 | | |
| A03111, 1A 7670 | 71-4039 | | DATE MAILED: 03/17/2009 | | |

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 3 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 3 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 (571)-272-4200.

| | Application No. | Applicant(s) | | |
|--|--|--|--|--|
| | 10/595,521 | ZIMMER, CHRISTIAN | | |
| Notice of Allowability | Examiner | Art Unit | | |
| | Gunnar J. Gissel | 2856 | | |
| The MAILING DATE of this communication appe All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI of the Office or upon petition by the applicant. See 37 CFR 1.313 | (OR REMAINS) CLOSED in this app or other appropriate communication GHTS. This application is subject to | olication. If not included will be mailed in due course. THIS | | |
| 1. This communication is responsive to <u>11/14/2008</u> . | | | | |
| 2. The allowed claim(s) is/are <u>2,3,5-14 and 17-20</u> . | | | | |
| Acknowledgment is made of a claim for foreign priority urestanding and the content of the priority documents have content of the content of the | been received. been received in Application No cuments have been received in this communication to file a reply received in this received in | national stage application from the | | |
| THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. | | | | |
| A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give | | | | |
| 5. CORRECTED DRAWINGS (as "replacement sheets") mus | et be submitted. | | | |
| (a) including changes required by the Notice of Draftspers | on's Patent Drawing Review (PTO- | 948) attached | | |
| 1) 🔲 hereto or 2) 🔲 to Paper No./Mail Date | | | | |
| (b) ☐ including changes required by the attached Examiner's Paper No./Mail Date | s Amendment / Comment or in the O | ffice action of | | |
| Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in the | | | | |
| 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. | | | | |
| Attachment(s) | | | | |
| 1. Notice of References Cited (PTO-892) | 5. Notice of Informal Page 1 | atent Application | | |
| 2. Notice of Draftperson's Patent Drawing Review (PTO-948) | 6. ☐ Interview Summary Paper No./Mail Dat | | | |
| 3. Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date | 7. 🛛 Examiner's Amendn | | | |
| Examiner's Comment Regarding Requirement for Deposit of Biological Material | _ | 8. Examiner's Statement of Reasons for Allowance | | |
| | 9. Other | | | |
| | | | | |
| | | | | |
| | | | | |

Application/Control Number: 10/595,521 Page 2

Art Unit: 2856

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Brian Prewitt on 3-9-2009.

The application has been amended as follows: 5. (Currently amended) A method according to claim 3, wherein a length of the measuring window is determined by analysis of an envelope which is formed from the received combustion noise.

Allowable Subject Matter

- 1. Claims 2, 3, 5-14, 17-20 are allowed.
- 2. The following is an examiner's statement of reasons for allowance: The prior art does not teach or suggest the combination of elements shown in the independent claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Application/Control Number: 10/595,521 Page 3

Art Unit: 2856

Response to Arguments

3. Applicant's arguments, see pages 7-8, filed 11/14/2008, with respect to the claims have been fully considered and are persuasive. The rejection of the claims has been withdrawn.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gunnar J. Gissel whose telephone number is (571)270-3411. The examiner can normally be reached on Mon-Fri, 7:30AM-5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571)272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/GJG/

2/4/2009

Application/Control Number: 10/595,521 Page 4

Art Unit: 2856

/Hezron Williams/ Supervisory Patent Examiner, Art Unit 2856